

# The Global Compressed Air Energy Storage Market Report 2015

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## Abstracts

The rapidly increasing penetration of intermittent renewable energy on grids worldwide and volatility of load profiles are encouraging demand for long duration energy storage. Aside from pumped hydro, compressed air energy storage (CAES) is the only commercial long duration storage technology to have been deployed at utility scale. As a result, demand for traditional underground CAES that can be deployed at bulk scale, which has been dormant since 1991, will pick up meaningfully over the next few years.

The unique siting requirements of traditional underground CAES, however, present substantial development risk and limit the technology's outlook. Higher efficiency, next-generation CAES technologies that are not limited by geological considerations are on the cusp of commercialization, and are well positioned to address the gap in availability of long duration energy storage technology that can be sited where needed.

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Weaknesses

Opportunities

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Offset of Needed Peaking Power Generation Capacity

Offset of Needed Renewable Generation Capacity

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Investment Deferral

Renewable Energy Dispatch and Timing Benefits (ability to meet Renewable Energy targets, etc.)

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U.S. Department of the Treasury

Renewable Energy Grants

U.S. Department of Energy

Green Power Purchasing Goal

Loan Guarantee Program

Innovative Technology Loan Guarantee Program

Temporary Loan Guarantee Program

Smart Grid Investment Grant Program

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European Union

EU Climate and Energy Package: Renewable Energy Targets

An Energy Policy for Europe

European Council Action Plan (2007–2009) Energy Policy for Europe

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Australia

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Clean Energy Program

China

India

Indonesia

New Zealand

Thailand

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Dresser-Rand Group

General Compression

Hydrostor

LightSail Energy

SustainX  
Other Prominent CAES Vendors  
Apex CAES  
Bright Energy Storage Technologies  
Gaelectric  
Pacific Gas and Electric Company  
Significant Component Provider  
AES Energy Storage LLC  
ALMiG Kompressoren GmbH  
Alstom Power  
Ambri Inc  
American Vanadium Corp  
Ansaldo Energia  
American Precision Industries (API)  
Atlas Copco Gas & Process GMBH  
Bauer Kompressoren GMBH  
Brayton Energy, LLC  
BTEC Turbines, LP  
Elliott CO  
GE Energy  
MAN Diesel & Turbo SE  
Maxwell Technologies, Inc  
Parker Hannifin  
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AES Energy Storage LLC

ALMiG Kompressoren GmbH  
Alstom Power  
Ambri Inc  
American Vanadium Corp  
Ansaldo Energia  
American Precision Industries (API)  
Atlas Copco Gas & Process GMBH  
Bauer Kompressoren GMBH  
Brayton Energy, LLC  
BTEC Turbines, LP  
Dresser-Rand Group  
Elliott CO  
GE Energy  
General Compression  
Hydrostor  
LightSail Energy, Inc  
MAN Diesel & Turbo SE  
Maxwell Technologies, Inc  
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